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BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

BELLINGER, JASON R

ART UNIT PAPER NUMBER

3617

DATE MAILED: 03/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/722,458

Applicant(s)

HSIEH ET AL.

Examiner

Jason R Bellinger

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-8, 10 and 13-20 is/are rejected.
- 7) ☒ Claim(s) 4, 9, 11 and 12 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the rubber bead formed as a "gear-shaped circular salient structure" as set forth in claims 4 and 17, and the surface of the supporting section having a grooved hollow structure or a plurality of bulges, as set forth in claims 8 and 18, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

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2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 205. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities: In line 1 of page 7, the term "arrange" should be replaced with the term --arranged-- for grammatical clarity.

Appropriate correction is required.

4. A substitute specification in proper idiomatic English and in compliance with 37 CFR 1.52(a) and (b) is required. The substitute specification filed must be accompanied by a statement that it contains no new matter.

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An example of language that may be a literal translation of a foreign document are lines 5-6 of the 3rd paragraph of page 6.

Claim Objections

5. Claims 1, 8, 16, and 18 are objected to because of the following informalities: In line 5 of claim 1 and line 6 of claim 16, the phrase "then fixing on" should be replaced with the phrase --fixed on--.

In line 3 of claim 8, the term "bulge" should be replaced with the term --bulges--.

In line 4 of claim 18, the phrase "will support the" should be replaced with the phrase --supporting the--.

These corrections are for grammatical clarity. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

7. Claims 10, 13-14, and 19-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 10 and 19 are indefinite due to the fact that it is unclear what is actually being claimed in the last 2 lines of the claims. See paragraph 8 below.

Claims 13 and 20 are indefinite due to the fact that it is unclear what is being claimed by the phrase "malposition structure". This element has not been clearly

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described in the specification, and therefore it is unclear what element of the invention as shown in the drawings is considered a "malposition structure".

Claim 14 is indefinite due to the fact that it is unclear what is being claimed by stating that the supporting device is formed from a "transition metal". Neither the claim nor the specification has clearly defined what a "transition metal" actually is.

8. The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-3, 5-8, and 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hsu ('463 A1) in view of Hsu ('757 A1). In Figure 5, Hsu ('463 A1) shows a wheel having a tire 10, and a rubber bead 205. The rubber bead 205 is a continuous circular salient structure located on an inner wall 101 of the bead of the tire 10, and includes two surfaces that are intersected by an acute angle.

While Hsu does not specify that the rubber bead 205 is formed of rubber, Hsu does specify that the rubber bead is compressible. It is well known in the art that rubber

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is a compressible material, and therefore it would have been obvious at the time of the invention to form the rubber bead of Hsu from rubber for its well-known compression characteristics.

A supporting device 200 surrounds the rubber bead 205 and is fixed on the tire 10. The supporting device 200 includes an indentation section 204 for connecting with the circular salient structure of the rubber bead 205. The supporting device 200 includes a supporting section 206 for supporting the inner wall of the tire 10 in the event that the tire 10 loses inflation pressure. The surface of the supporting section 206 is flat. The supporting device 200 is made from both a rubber material (the supporting section 206, for the same reasons as the rubber bead 205) and a metal material (for the frame portion 202). The supporting device 200 includes a hollow structure 202 (due to holes 202a).

Hsu ('463 A1) does not specify that the rubber bead is pasted to the inner wall of the tire. Hsu ('757 A1) teaches the use of a rubber bead 20 that is pasted, or adhered, to an inner wall 101 of a tire 10 (see paragraph 0013). Therefore from this teaching, it would have been obvious to one of ordinary skill in the art at the time of the invention to secure the rubber bead of Hsu ('463 A1) to the inner wall of the tire using an adhesive for the purpose of preventing the rubber bead from shifting out of position during operation (i.e. running the tire in an under-inflated condition), thus reducing the risk of further damage to the tire and/or wheel by keeping the tire in place.

Allowable Subject Matter

11. Claims 4, 9, and 11-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. Claims 10, 13, and 19-20 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references are considered to show run-flat tire assemblies having the run-flat structure secured to the tire. For example, Filliol et al shows a run-flat wheel of the type described above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason R Bellinger whose telephone number is 703-308-6298. The examiner can normally be reached on Mon - Thurs (9:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Morano can be reached on 703-308-0230. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jason R Bellinger
Examiner
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JASON R. BELLINGER
PATENT EXAMINER

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